Fuel for Thought: University Opens England's Only Hydrogen Fuelling Station

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The University of Birmingham today unveiled the only hydrogen gas fuelling station in England on its Edgbaston campus.

The Air Products Series 100 fuelling station is situated at the University's Department of Chemical Engineering where research projects are being carried out to ascertain the viability of hydrogen in transport applications as part of Birmingham's Science City hydrogen energy project.

Birmingham engineers will be comparing five hydrogen powered vehicles with the University's own fleet of petrol, diesel and pure 'electric' vehicles so that they can learn more about their efficiency and performance. The researchers will determine how these vehicles need to be adapted in order to make hydrogen an attractive and cost effective option as a future fuel.

As a direct result of this research it is hoped that the public sector will start to buy into these new technologies, providing support to companies in the supply chain who are moving from the technology demonstration phase into the early stages of commercialisation.

The Series 100 station has been specially designed by Air Products, a leading producer and supplier of hydrogen with over 50 years experience in hydrogen applications, to meet the fuelling needs of the first hydrogen vehicles to appear on the roads. The fueller comprises an integrated compression, hydrogen storage and dispensing system, and is optimised to fuel up to approximately six vehicles per day. Minimal onsite utilities are required for the fueller, which can be easily moved from site to site, making it ideal for hydrogen fuelling start up stations.

Professor Kevin Kendall, lead investigator from the University's Department of Chemical Engineering, says, 'We are delighted to be the home of England's only hydrogen gas filling station. It is absolutely necessary that we have the means to refuel our fleet of hydrogen powered cars so that we can carry out our research project into the feasibility of hydrogen in a transport context.'

Ian Williamson, Hydrogen Energy Systems Director, Europe, Middle East and Africa from Air Products says, 'We are extremely proud to provide the first hydrogen fuelling station to a UK university. Air Products is the market leader in the development of hydrogen fuelling stations. We have already installed 21 mobile fuellers and built more than 80 stations worldwide. Over 50,000 vehicle fuellings have already safely taken place thanks to Air Products technology.'

Dr Bruno Pollet, from the Fuel Cells Group says, 'We are starting to take the necessary steps to gear up towards a hydrogen and fuel cell infrastructure, so it is essential, now, that we begin to develop a supply chain of businesses which can generate jobs and growth in these new technologies. Hydrogen powered vehicles will help to create new working partnerships and to bring about a sense of cohesion among those already working in the industry.'

Dr Waldemar Bujalski of the University's Fuel Cell Group says, 'We fully appreciate the initial capital investment from Advantage West Midlands which has enabled us to expand the scope of our long standing activities in the hydrogen and fuel cell research areas. This investment was crucial for securing further funds from a variety of sources for establishing and maintaining the necessary manpower and resources to carry out this exciting research.'

The research is part of the hydrogen energy project which has received funding from Regional Development Agency Advantage West Midlands to develop the use of hydrogen energy as a green fuel in collaboration with the University of Warwick. The project has been approved as part of the Science City Initiative.

Notes to Editors:

The event will start at 11.30am at will take place at the Department of Chemical Engineering on the University of Birmingham's Edgbaston campus. If you would like to send a representative to the launch please contact Kate Chapple, Press Officer, University of Birmingham, tel 0121 414 2772 or 07789 921164 or email: k.h.chapple@bham.ac.uk

1. Hydrogen Supply for the filling station

The hydrogen comes from Green Gases Ltd. The hydrogen is produced by ‘green’ means – therefore it is manufactured from renewable energy, resulting in a considerable reduction in greenhouse gas emissions when compared with conventionally produced hydrogen - http://www.green-gases.com/index.htm

2. Air Products
Air Products (NYSE:APD) serves customers in industrial, energy, technology and healthcare markets worldwide with a unique portfolio of atmospheric gases, process and specialty gases, performance materials, and equipment and services. Founded in 1940, Air Products has built leading positions in key growth markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction, and advanced coatings and adhesives. The company is recognized for its innovative culture, operational excellence and commitment to safety and the environment. Air Products has annual revenues of $10 billion, operations in over 40 countries, and 22,000 employees around the globe. For more information, visit www.airproducts.com.

For further information about Air Products and the fueller contact: Guenaelle Holloway, Tel: 01932 249 245

3. Microcab
Five hydrogen powered vehicles have been purchased by the University from Microcab Industries Limited. The Microcab is the product of entrepreneur John Jostins who visualised a small, urban vehicle with zero emissions suitable for use as a taxi or light freight carrier - the result is a vehicle powered by a hydrogen fuel cell, pollution free and virtually silent in operation. The only emission is water. It weighs 450kg (10081lbs) and has a maximum speed of 45kph (30mph) with a range, on a full hydrogen tank, of approximately 160km (100miles).

4. Birmingham Science City
Birmingham Science City is a widely drawn partnership of industry, business, education and the public sector, working together to establish the West Midlands region as a centre for world-class scientific research. By building on the region's well established reputation for innovation; working closely with the knowledge base and bringing partners together through supported projects and communications, Birmingham Science City aims to promote the value of science and innovation in improving Quality of Life.

For more information please visit www.birminghamsciencecity.co.uk

5. University of Birmingham Fuel Cell Group
The Fuel Cell Group was set up in 2000 in the Department of Chemical Engineering by Professor Kevin Kendall who jointly with Dr Waldemar Bujalski and Dr Bruno Pollet are leading the research projects in hydrogen vehicles and Combined Heat and Power systems stemming from a range of AWM funding including the Science City initiative.

6. Hydrogen hybrid canal boat
A zero-emission hydrogen hybrid canal boat has also been developed by engineers at the University of Birmingham and was unveiled in September 2007. The boat is fully operational and demonstrates how a combination of magnet and fuel cell technologies could be used to power inland waterways craft .

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